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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,284	03/04/2004	Colin N.B. Cook	2540-0702	3143

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EXAMINER

SITTA, GRANT

ART UNIT	PAPER NUMBER
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2629

MAIL DATE	DELIVERY MODE
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04/13/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/792,284	COOK ET AL.	
	Examiner	Art Unit	
	GRANT D. SITTA	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/13/2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being Schneider et al by 2002/0038334, hereinafter, Schneider.

3. In regards to claim 1, Schneider discloses the limitations of a method of image improvement in a virtual presence architecture (VPA) (fig. 1a (12, 50 and 20a-20c)) including a host computer (fig. 1a (20a-20c)) in communication with a virtual presence server (VPS) (fig. 1a (50)), a remote computer in communication with a virtual presence client (VPC) (fig.1a (12)), the method: on each new screen resolution that is received by a VPS ([0046] and [0025-0027]), comprising:

detecting at the VPS a new screen resolution of the host computer [0069],

adjusting a screen border to correspond with the new screen resolution ([0046] and [0061-0067]);

identifying whether the adjusted screen edge is near an expected location [0062];

Art Unit: 2629

if no black border is found near to the expected border location [0060] discarding the adjusted screen border and loading a predetermined set of values [0060] screen border; and

if a black border is found near to the expected border location [0062], using the screen resolution of the host computer detected [0060] at the VPS instead of discarding the adjusted screen border and loading a predetermined set of values for the screen border [0059-0063].

[0060] As would be appreciated by one of ordinary skill in the art, other resolutions are possible. *The determination of other possible modes may be aided by reference to VESA and Industry Standards and Guidelines for Computer Display Monitor Timing, Version 1.0, Revision 0.7, Revision Date: Dec. 18, 1996, the contents of which are incorporated herein by reference.*

[0061] *In addition to the above factors used to control video modes, the system of the present invention also controls when sampling begins following an (P)HSYNC signal or a VSYNC signal. The time from signal to first sample is called the "front porch." If sampling after an (P)HSYNC signal begins too early (i.e., the front porch is too short), the system will sample "black" pixels prior to the real left edge of the display. If sampling after an HSYNC signal begins too late (i.e., the front porch is too long), the system will miss sampling the beginning pixels of the display. Similar problems exist for timing with relation to the VSYNC signal. Accordingly, the present invention provides the ability to set the front porch.*

[0062] In one embodiment of the present invention, the front porch is set manually through user intervention typically through a trial and error process. In three automated embodiments, the system of the present invention provides automatic determination of the front porch when a non-black background is used. In the first automated embodiment, the right edge of the screen is used as a reference. Thus, the system uses an initial front porch value, counts out the number of pixels in a row, and then determines if the pixel after the end of the row is black or colored. *If that pixel is black using the initial front porch value, then the front porch value is shortened and the counting process is repeated. This shortening process is repeated until a non-black pixel is found in iteration I. Then the front porch value is reverted to the front porch value in iteration I-1 i.e., to the front porch value in the previous iteration. On the contrary, if the pixel is colored when using the initial front porch value, then the front porch value is increased until a black pixel is found at the end of a row in iteration I. The front porch value is then reverted to the delay value in iteration I-1 i.e., to the front porch value in the previous iteration.*

[0063] *In the second automated embodiment, a process similar to the first automated embodiment is used, except that the beginning of the row is analyzed. If the beginning of the row is found to be black, then the front porch value is increased until a non-black pixel is found in iteration I. Conversely, if the beginning*

Art Unit: 2629

of the row is found to be colored, then the front porch value is decreased until a black pixel is found in iteration I. Then the front porch value is reverted to the front porch value in iteration I-1.

[0064] In a third automated embodiment, the processes of the first and second *automated embodiments are combined thereby checking the left and right edges. In this manner*, the correct number of pixels per line can also be automatically determined. A similar process can be performed for the vertical delay looking at (1) the top row, (2) the bottom column, or (3) the top and bottom columns. (emphasis added)

Examiner notes, Schneider starts by making reference to resolution may be aided by reference to VESA and industry standard or detecting at the VPS a new screen resolution of the host computer. Next, Schneider adjusts a screen border to corresponding with the new screen resolution, or in other words adjusts the front porch [0062]. After that, Schneider identifies whether the adjusted screen border is near an expected location by looking for the black pixel of each row. The Office is taking the position that the black pixel at the end of each row, discussed in [0062-0064] defines a black border at the end of a frame.

Schneider teaches the condition wherein if no black border is found near the expected border location, discarding the adjusted screen border and loading a predetermined set of values for the screen border, during the optimization process. During the underlined shorting process, highlight above, if a non-black pixel is found during the shortening period the front porch value is reverted to the front porch value in the iteration before. For example, A VESA resolution is loaded, the front porch is shortened and if a non-black pixel is found discarding the front porch adjustment and loading the original VESA resolution which was originally correct.

Schneider also teaches the condition wherein if a black border is found near the expected border location using the screen resolution of the host computer detected at the VPS instead of discarding the adjusted screen boarder and loading a predetermined set of values for the screen border. This condition is met because the optimization sub-routine is continued, i.e., "If that pixel is black using the initial front porch value, then the front porch value is shortened and the counting process is repeated" [0062], or in other words, the original mode resolution first detected will be used and the front porch adjustment optimization will continue to run.

4. In regards to claim 2, Schneider teaches (Original): the method of claim 1, wherein the predetermined set of values for the screen border is the Video Electronics Standards Association (VESA) set of standard values [0060]. Examiner notes, with Schneider if the shorting process reaches a non-black pixel the front porch value is reverted back to the iteration before which in our example would be the VESA mode originally loaded.

5. In regards to claim 3, Schneider teaches the method of claim 1, wherein the adjusting is performed by setting a capture engine to move the screen down and to the right [0064]. Similarly the adjustment can further be done for vertical delay and thus would move the screen to the right and down.

6. In regards to claim 4, Schneider teaches the method of claim 1, wherein the user is prompted to manually adjust the screen border to correspond with the new screen resolution. [0062] wherein the front porch is set manually through user intervention.

7. In regards to claim 5, Schneider teaches the method of claim 1, wherein the VPA automatically adjusts the screen border to correspond with the new screen resolution [0062] automatic embodiments.

Response to Arguments

8. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GRANT D. SITTA whose telephone number is (571)270-1542. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on 571-272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2629

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alexander S. Beck/
Supervisory Patent Examiner, Art Unit 2629

/Grant D Sitta/
Examiner, Art Unit 2629